REMARKS:

Applicant has carefully studied the nonfinal Examiner's Action and all references cited therein. The amendment appearing above and these explanatory remarks are believed to be fully responsive to the Action. Accordingly, this important patent application is now believed to be in condition for allowance.

Applicant responds to the outstanding Action by centered headings that correspond to the centered headings employed by the Office, to ensure full response on the merits to each finding of the Office.

Information Disclosure Statement

The Office has requested that the Applicant provide a date for the reference to Terrovitis. The reference has been considered, but a date for the reference could not be found by the Office.

Drawings

The drawings stand objected to as failing to comply with 37 CFR 1.84(p)(5) because they include the following reference character(s) not mentioned in the description: Figure 6, element 120.

The drawings stand objected to as failing to comply with 37 CFR 1.84(p)(14) because reference character "120" has been sued to designate both "Displaying a Result of the Simulation" in Figure 6 and "Stimulus Supply" in Figure 7.

The drawings stand objected to because Figure 8 is not discussed in the specification.

The specification and the drawings have been amended to overcome the objections presented by the Office. Corrected drawings sheets including Fig. 6 and Fig. 7, in compliance with 37 CFR 1.121(d), are included with this response.

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Support for the amendment to the Fig. 7, adding element "121", finds support in the application as originally filed. More specifically, the specification states at paragraph [0056] that Fig. 7 includes stimulus supplies **120 /121** to supply the stimulus condition input to the frequency translation device **122**. Additionally, paragraph [0060] has been amended to add the proper reference designators, making it clear that the inputs to the frequency translation device **122** include the input signal **120** and the LO drive **121**. As such, support for the amendment is found in the specification as originally filed and no new matter has been added by amendment to the drawings or the specification.

Paragraph [0058] has also been amended to overcome the objection by the Office regarding Fig. 8.

Specification

The disclosure has been objected to due to informalities. Paragraph [0015] has been amended to overcome the objection. The Applicant considers paragraph [0064] to be complete, and as such has not presented an amendment to overcome the objection.

Claim Rejections – 35 U.S.C. § 112

Applicant acknowledges the quotation of 35 U.S.C § 112, second paragraph.

Claims 1-37 stand rejected under 35 U.S.C § 112, second paragraph as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claims 1, 13, 14, 16-20, 33 and 35-37 have been amended to overcome the 35 U.S.C § 112, second paragraph rejections by the Office.

Regarding claim 4, the Office states that the term "range of values" in the claim is a relative term which renders the claim indefinite. The Office states that the term "range of values" is not defined by the claim, the specification does not provide a standard for ascertaining the requisite degree, and one or ordinary skill in the art would not be reasonably apprised of the scope of the invention. The Applicant respectfully disagrees with this finding by the Office.

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The Applicant believes that the term "range of values", when read in light of the supporting specification, would enable one of ordinary skill in the pertinent art to ascertain the term with a reasonable degree of precision and particularity. The drawings included in the application are considered part of the disclosure. Fig. 14 is a graphical illustration of the simulated conversion loss of the mixer under swept LO power and RF power. Fig. 14 states that each of the curves on the graph stands for one LO power and the LO power sweeps from 0dBm to 10dBm, in 1 dB step increments. Accordingly, the "range of values" through which the input signal and local power oscillator power is stepped are identified in the figure. As such, the Applicant believes that support for the term "range of values" is found at least in Fig. 14 of the specification as originally filed and that the term "range of values", when read in light of the supporting specification, would enable one of ordinary skill in the pertinent art to ascertain the term with a reasonable degree of precision of particularity.

Claim Rejections – 35 U.S.C. § 103

Applicant acknowledges the quotation of 35 U.S.C § 103(a).

Claims 1-6, 13-15, 17, 19-25, 32-35 and 37 stand rejected under 35 U.S.C § 103(a) as being unpatentable over Lassesen ("Simulation and Measurement of Wireless Transmitter and Receiver Hardware", Master's Project Report, University of South Florida, sections 2.1.3, 2.1.4, 2.1.7, 3.6, 3.7, 4.1.6, 4.3, A.6, Appendix E, August 2000) in view of Benabe et al. (Simulation of a 935 MHz receiver Using the HP Advanced Design System, ARFTG Conference Digest, Computer-Aided Design and Test for High-Speed Electronics, pages 28-38, 1998).

Regarding claim 1 and 20, the Office states that Lassesen teaches a method and system for characterizing a frequency translation device, the method comprising: a stimulus supply for supplying a stimulus condition as input to the frequency translation device (section 3.6, paragraph 1, last sentence; Figure 3-12, "VNA" and "SRC"); an output measurement device for measuring a plurality of intermodulation products in the output spectrum of the frequency translation device resulting from the stimulus condition input, the plurality of intermodulation products further comprising a plurality of sum intermodulation products and a plurality of difference intermodulation products (section 2.1.3, paragraph 1, sentence 4; section 2.1.7, paragraph 1, sentences 6-8; section 2.1.7, paragraph 2 and Tables 2-1, 2-21; section 3.6,

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paragraph 1, sentences 1-2; Figure 3-12, "SA"); establishing a predetermined file format (Table 2-1); storing the plurality of sum intermodulation products and the plurality of difference intermodulation products in a plurality of output files according to the predetermined file format (Table 2-1, figure 2-21 and descriptions; section 2.1.7, paragraph 2; section 3.6, sentences 1-3; E.6, paragraphs 1-2, 6, Table E.1).

Additionally, the Office states that Lassesen does not expressly teach: establishing an index file to identify the stored output files identified by the stimulus condition, but that Benabe et al. teaches the use of Advanced Design System software (ADS) to simulate a 915 MHz receiver which provides the capability to obtain a more accurate prediction of intermodulation distortion or adjacent channel power that would be obtained through the use of actual filter characteristics, including the effects of non-ideal skirts and any parasitic pass-bands which may exits (Introduction , paragraphs 1 and 2). The Office goes on the state that Benabe et al. teaches the use of an intermodulation file for the mixer, wherein the appropriate sideband is selected and the intermodulation file is indexed and identified by the stimulus condition (Introduction , paragraph 3; section D, paragraph 1 and Figure 9).

The Office concludes that because Lassesen and Benabe et al are analogous art, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the storage of the intermodulation products as taught by Lassesen to further include the establishment of an index file to identify the output files storing the intermodulation products as taught in Benabe et al.

Applicant respectfully disagrees with the finding by the Office.

The Office states that Lassesen teaches that the plurality of intermodulation products further comprising a plurality of sum intermodulation products and a plurality of difference intermodulation products (section 2.1.3, paragraph 1, sentence 4; section 2.1.7, paragraph 1, sentences 6-8; section 2.1.7, paragraph 2 and Tables 2-1, 2-21; section 3.6, paragraph 1, sentences 1-2; Figure 3-12, "SA") and establishing a predetermined file format (Table 2-1); storing the plurality of sum intermodulation products and the plurality of difference intermodulation products in a plurality of output files according to the predetermined file format (Table 2-1, figure 2-21 and descriptions; section 2.1.7, paragraph 2; section 3.6, sentences 1-3;

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E.6, paragraphs 1-2, 6, Table E.1). Applicant disagrees that Lassesen describes a plurality of intermodulation products that comprise a plurality of sum intermodulation products and a plurality of difference intermodulation products.

Lassesen describes an intermodulation file used for mixer simulation that stores only the sum or the difference intermodulation products under the assumption that the mixer is symmetrical, i.e. the corresponding sum and difference intermodulation products have the same amplitude. As illustrated by Lassesen in Table 2-1, and stated in the paragraph prior to the table illustration, the numerical entries in the table represent the *relative* amplitude in dBc relative to the expected IF (or RF in the case of an up-converting mixer) frequency power level, of the mixing products that are expected to be present at the mixer outputs at various frequencies. As such, it is clear that Lassesen describes storing the relative amplitude, or in other words, either the sum intermodulation products or the difference intermodulation products, but not both the sum intermodulation products and the difference intermodulation products as disclosed and claimed by the present invention.

For the reasons cited above, Applicant does not believe that Lassesen describes a plurality of intermodulation products comprising a plurality of sum intermodulation products and a plurality of difference intermodulation products as disclosed and claimed by the present invention.

For the reasons cited above, Applicant believes that amended independent claims 1 and 20 are patentable over Lassesen in view of Benabe et al. and are believed to be in condition for allowance.

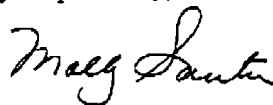Claims 2-18 are dependent upon claim 1, and are therefore allowable as a matter of law.

Claims 21-36 are dependent upon claim 20, and are therefore allowable as a matter of law.

For the reasons cited above, Applicant believes that amended independent claim 19 and 27 are patentable over Lassesen in view of Benabe et al. and are believed to be in condition for allowance because neither Lassesen or Benabe et al. describe a plurality of intermodulation

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products comprising a plurality of sum intermodulation products and a plurality of difference intermodulation products as disclosed and claimed by the present invention.

If the Office is not fully persuaded as to the merits of Applicant's position, or if an Examiner's Amendment would place the pending claims in condition for allowance, a telephone call to the undersigned at (813) 925-8505 is requested.

Very respectfully,

SIGNATURE OF PRACTITIONER

Reg. No. 46,457
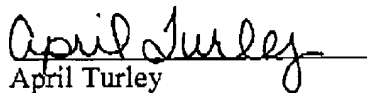Tel. No.: (813) 925-8505

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<u>CERTIFICATE OF FACSIMILE TRANSMISSION</u>

(37 C.F.R. 1.8(a))

I HEREBY CERTIFY that this Amendment A is being transmitted by facsimile to the United States Patent and Trademark Office, Art Unit 2858, Attn.: Walter Benson, (517) 273-8300 on January 30, 2007.

Dated: January 30, 2007

April Turley

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